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(54) Title: NOVEL CYCLIC OXYGENATED COMPOUNDS HAVING COOLING, FRAGRANCE, AND FLAVOR PROPER-
TIES, AND USES THEREOF

(57) Abstract: Compositions that include compounds capable of producing a cooling sensory effect such as certain hydroxy-ketones and hydroxy-aldehyde compounds, their cyclic semi-ketals and semiacetals, and other derivatives thereof. The compounds impart a refreshing and cooling sensation of long duration and high potency, and thus are useful in a variety of formulations, including consumer products such as mouth formulations, food and beverage products, tobacco and smoking articles, fragrances, toiletries, ointments, and the like.

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